

St. Catherine University

**SOPHIA**

---

Masters of Arts in Education Action Research  
Papers

Education

---

5-2020

## The Impact of Grace and Courtesy Lessons on Self-Regulation in a Toddler Montessori Environment

Catherine S. T. Greene

Follow this and additional works at: <https://sophia.stkate.edu/maed>



Part of the [Early Childhood Education Commons](#), and the [Educational Methods Commons](#)

---

The Impact of Grace and Courtesy Lessons on  
Self-Regulation in a Toddler Montessori Environment

Submitted on May 10, 2020

in fulfillment of final requirements for the MAED degree

Catherine S. T. Greene

Saint Catherine University

St. Paul, Minnesota

Advisor \_\_\_\_\_

Date \_\_\_\_\_

### Acknowledgements

Our present moment is created by those who have come before us. I am grateful to the work of Maria Montessori, who observed children and created an educational and life philosophy that is not bound by time or space but adaptable to every time and culture. Learning Montessori philosophy changed me as a parent and inspired me to be an educator. I am grateful for my parents who valued and provided for my education. I give thanks to my mother who connected my family with the Montessori school that my children attended, and I worked. I am grateful to Sarah Hassebroek, Olivia Christensen, Teresa Ripple, and Carol Sicard at St. Catherine University. This work would not be what it is without the support of my project coach, Alisha Brandon and the staff in the O'Neill Writing Center at St. Catherine University.

To my colleagues in the St. Catherine University Montessori AM2 program, to say I could not have done this without you, is an understatement. Despite physical distance we created a peaceful community that would make Maria Montessori proud.

I am grateful for the support of my teaching team, in allowing me time to conduct this research while they did extra diaper changes. I give thanks to our head of school and our board who took interest in my research.

Lastly, to my family, thank you for your patience while I was researching and writing. To my partner in life who continues to be a source of strength and inspiration, I am eternally grateful.

In all things, love.

### Abstract

The skills associated with self-regulation begin in toddlerhood. This action research study was designed to assess the impact of Grace and Courtesy lessons on toddler behavior. Students participated in lessons on how to greet a friend, how to ask for a turn and how to express affection. The study took place in a Montessori toddler classroom of 14 children, aged 26-36 months old. The classroom was part of a half-day Montessori preschool located in the South Eastern United States. I used field notes and tally marks to observe behavior in the classroom. Observations were done daily, and the data collection tools tracked behavior in the classroom. Grace and courtesy lessons were offered to all students daily. While more research in this area is needed the overall impact of the Grace and Courtesy lessons showed an increase in use of language rather than physicality for expression.

*Keywords:* Montessori, Grace and Courtesy, toddlers, behavior, self-regulation

Toddlerhood is filled with learning. During these years toddlers begin mastery of movement and language. Toddlers also begin to have social lives and interactions with other toddlers. When toddlers want something, they grab it, regardless of who is holding it. This type of interaction, though developmentally appropriate, can be disruptive in a toddler classroom and can lead to pushing, hitting, and even biting, as a means of communicating (Benedict, Horner, & Squires, 2007). In the Montessori toddler classroom where I work, teachers use sportscasting to give words to what the toddlers are doing. For example, if a child grabs a building block and is pulling it from another child, the teacher says, “I see you both want this block. Is there another block? Louisa is using this block, Claudia you can have a turn next.” The teacher narrates what is happening, giving language to possible thoughts and feelings, and prompts for solutions. This situation could end with one of the children letting go of the block or the teacher saying, “Claudia let’s go find another block.”

I use sportscasting in my half-day toddler classroom and as a result observe that children learn language to communicate what they want. The children say, “No this is my work”, “You can have a turn, next.”, “I want that work.” “I want a turn.” While the children have learned from this narration and example, I still observed hitting, biting, pushing among the children mostly over work materials. After being with this group of students for a year and a half, I wondered how adopting Montessori’s Grace and Courtesy Lessons would impact the physicality that toddlers often use for communication. Montessori Grace and Courtesy lessons are a method of teaching social skills to children. Montessori curriculum for children ages 3-6 is rooted in Grace and Courtesy lessons such as how to greet a friend, how to ask for a turn, and how to express affection.

Being with toddlers in a Montessori classroom is different from a traditional classroom. Often in a traditional classroom the teacher is leading all the children in the same activity and even when the children are given free time the teachers intervene to direct or correct play (Ervin, Wash, & Mecca, 2010). In a Montessori toddler classroom, children have the freedom to choose their own activity, or work, and the teacher is an active observer and guide. In a traditional classroom each child may have a container of play dough working under group instruction to make a ball of the dough. In a Montessori classroom there is one tray with playdough and children take turns. Toddlers are in the process of learning to wait for a turn.

The skills used when waiting are part of self-regulation. The brain's natural development of self-regulation begins around age two and research has shown that the classroom environment, including the relationship with the teacher, impacts a child's development of self-regulation (Bagby & Sulak, 2018;.Booth, Hennessy, & Doyle, 2018; Ervin, Wash, & Mecca, 2010; Gloeckler & Cassell, 2012; La Paro & Gloeckler, 2016; Thompson, R.A. 2001; Willis & Dinehart, 2014). Self-regulation is exhibited when a toddler says, "I want a turn," instead of grabbing the work, or says, "My work" when a classmate reaches for their work instead of biting the hand of the toddler reaching for the work.<sup>1</sup>

Using Grace and Courtesy lessons with older toddlers, age 27 months to 37 months, I observed the impact on the students' self-regulation as indicated by use of language and frequency of physicality in the classroom.

<sup>1</sup> In agreement with modern pronoun use and application, I have chosen to use gender neutral pronouns, including they, them, and their, throughout the entirety of this paper.

### **Theoretical Framework**

For my research I used Dr. Maria Montessori's (1995) theories of the Four Planes of Development and Normalization for my theoretical framework. Montessori (1995) divided human development into four planes: (a) early childhood (birth to age six); (b) childhood (age six to twelve); (c) adolescence (age twelve to eighteen); and (d) maturity (age eighteen to twenty-four). Each plane is characterized by developmental periods of learning. Developmental periods in early childhood include movement, language, toileting, small objects, music, grace and courtesy, senses, writing, reading, spatial relationships and mathematics (Montessori, 1995).

Among the four planes of development, Montessori described the toddler phase (0-3) of life as the part where the child is learning unconsciously from their environment and from the adults around them (Montessori, 1995). Montessori education is dependent on the adult and the environment supporting the child's learning. The learning triad, comprised of the child, the adult, and a very prescribed learning environment, is the foundation for each plane of Montessori education. Each role of the triad is highly impactful on a child's learning, growth, and development (Montessori, 1995). Normalization is the process children undergo as a result of this developmentally appropriate environment. "Only 'normalized' children, aided by their environment, show in their subsequent development those wonderful powers that we describe: spontaneous discipline, continuous and happy work, social sentiments of help and sympathy for others" (Montessori, 1995, pp. 206-207). Maria Montessori's theory of normalization can be translated into our modern-day term self-regulation.

Self-regulation development begins around age two and is affected by genetics, relationships, and the environment (Booth et al., 2018; Conway & Stifter, 2012). Toddlers observe and naturally learn from their environment which can be defined as the physical space,

and the adults in that space. Adults as role models are the child's first lesson in self-regulation (Bettmann, 2015). Diamond and Lee (2011), as well as Bagby and Sulak (2018), report that a Montessori environment in and of itself supports the development of self-regulation in children. When children are given freedom and opportunity for meaningful work they will normalize (Fernando, 1997).

My research into how grace and courtesy lessons affect physicality in the toddler classroom is guided by the characteristics of the first plane of development and normalization.

### **Literature Review**

The purpose of this action research project was to identify methods that augment the development of self-regulation in toddlers with the specific aim to decrease physicality that is disruptive in the classroom and harmful to others. My literature review will discuss scholarly work done in the following areas: self-regulation, self-regulation in young children, and interventions used to support the development of self-regulation in young children. While there is a lot of research on self-regulation, especially as interventions when self-regulation is lacking, more literature is needed on methods to augment the development of self-regulation in toddlers.

### **Self- Regulation**

Self-regulation is how people control their cognitive, behavioral, and emotional selves (Booth et al., 2018; Hofmann, Schmeichel & Baddeley, 2012). Cognitive self-regulation relates to memory and attention while behavioral self-regulation refers to "initiating or suppressing an action" (Booth et al., 2018, p. 3767). Emotional self-regulation relates to expressing and modulating emotions in appropriate manners.

Self-regulation has been extensively studied in the fields of psychology, medicine, economics, and education because the components of self-regulation turn out to be dependable



predictors for academic, financial and social life success (Blair & Diamond, 2008; Booth et al., 2018; Bridgett, Oddi, Laake, Murdock, & Bachmann, 2013; Conway & Stifer, 2012; Moffitt et al., 2011; Walton, 2016; Willis, 2016). Furthermore, the literature shows lack of self-regulation negatively affects mental and physical health (Booth et al., 2018; Bridgett et al., 2013; Conway & Stifer, 2012; Wyman et al., 2010).

Research shows that self-regulation affects success across a person's lifespan (Booth et al., 2018; Conway & Stifter, 2012). The ability to self-regulate early in life is associated with school readiness, fewer behavioral problems, and academic and social success (Bridgett et al., 2013; Booth et al., 2018). Furthermore, longitudinal studies show a relationship between self-regulation and better employment, earnings, and physical health (Bridgett et al., 2013; Booth et al., 2018). Poor self-regulation is associated with ADHD, drug use, depression, anxiety, addiction, and obesity (Bridgett et al., 2013; Booth et al., 2018; Wyman et al., 2010). Recent research finds stress, neurochemistry, and epigenetics all factor into the development of self-regulation (Booth et al., 2018). Self-regulation is a result of the development of executive functions and develops progressively from birth, with birth to age five being the most crucial period (Housman, 2017).

### **Self-regulation in young children**

Housman (2017) found that the time between birth and age five is critical to the development of emotional competence and self-regulation. The caregivers are identified as the key to children's development of self-regulation at this time (Bettmann, 2015; Housman, 2017). Interactions with parents or caregivers help children understand and express their emotions (Booth et al., 2018). Housman identified the role of parent or caregiver as 'co-regulator' where

the adult facilitates the "child's ability to understand, express, or modulate thoughts, behaviors, and feelings" (2017, p. 4).

Still, other research finds that physical environments, in addition to personal relationships, impact the development of self-regulation in toddlers (Booth et al., 2018; Conway & Stifter, 2012; Thompson, 2011). Predictable environments support self-regulation because they are accessible to and meet the needs of children (Gloeckler & Cassel, 2012; La Paro & Gloeckler, 2016). Research has shown that the Montessori environment, as defined by its sense of order, sense of routine, and children's ability to move freely around the classroom to choose work that piques their interests, is in and of itself a support or intervention for self-regulation (Bagby & Sulak, 2018; Ervin, Wash, & Mecca, 2010; Leonard & Schecter, 2013; Thompson, 2009; Thompson, 2018; Willis & Dinehart, 2014).

### **Common interventions for self-regulation**

When un-self-regulated behaviors common to toddlerhood extend beyond toddlerhood into ages three, four, and five, adults take notice and seek to find a way to support the development of self-regulation. Often self-regulation interventions begin with children older than three with the focus on the child. Interventions use direct teaching or activities. Programs such as Reaching Educators and Children (REACH) focus on teaching educators how to teach social and emotional skills to students (Conners-Burrow, Patrick, Kyzer, & Mckelvey, 2017). Utah's Behavior and Education Strategies for Teachers (BEST) program offers privileges and rewards for good behavior (Aden & Leffler, 2001). Tool of Mind (Barnett et al., 2008) uses language and math activities to teach self-regulation skills. While these programs differ from each other the common threads of success are the environment and the positive interactions with adults (Benedict, Horner, & Squires, 2007; Conners-Burrow et al., 2017). Ervin, Walsh, and

Mecca (2010) conducted a three-year study comparing Montessori and non-Montessori classrooms. They concluded that a Montessori classroom, with its focus on student's self-direction and teacher's self-efficacy beliefs about the classroom, support the behaviors that directly influence self-regulation.

### **Montessori Grace and Courtesy Lessons**

Taking time to teach skills is the essence of Montessori's grace and courtesy lessons. Instead of giving grace and courtesy lessons in response to a behavior, lessons are offered during a neutral time, so children are less likely to feel embarrassed and more open to learning (Bettman, 2015). Working with children ages 3-6 years olds, Gregoire (2017) observed an increase of grace and courtesy lessons and a decrease in number of conflicts. Van Fleet (2015) working with 6-9 year old students used daily presentations of grace and courtesy lessons to improve children's use of classroom materials. Andrews (2017) used grace and courtesy lessons to teach conflict resolution with children ages 3-6 and despite no change in conflicts among students, an increase in grace and courtesy was observed.

Unable to find research on how to support the development of self-regulation in toddlers, I draw from the importance of the caregiver (Bettmann, 2015; Benedict, Horner, & Squires, 2007; Conners-Burrow et al., 2017; Housmann, 2017) and an effective practice of grace and courtesy lessons, common in Montessori classrooms around the world (Hanusz-Rajkowski, 2016). My research will focus on Montessori grace and courtesy lessons used in a Montessori toddler classroom in order to discover interventions that support the development of self-regulation in toddlers.

### **Methodology**

The students in this study were enrolled in a private half-day Montessori preschool located in the Southeastern United States. The students ranged in age from 27 months to 37 months and were in a toddler class. Nine students attended school each weekday, five students attended only Monday, Tuesday and Wednesday and four students attended only on Thursday and Friday. There were 18 students total, eight boys and ten girls. Eight students were new to the Montessori classroom this year and for ten students it was their second year in the Montessori toddler class.

I have been working as a toddler teacher at this Montessori preschool since 2012. I completed my Montessori Teacher Certification in 2015. This study was approved by the Internal Review Board of St. Catherine University. Parents were given information about the research and given a week to opt out of the study, meaning the data collected on their child would not be used. All parents gave passive consent.

The interventions were three, different but related, grace and courtesy lessons. The lessons were conducted in small (3-4 children) groups. Every child was invited to participate in each lesson and a log was kept of dates each child received each lesson. These lessons were introduced using a bunny puppet and stuffed animal bunny to draw the children into the lesson. Once the children became accustomed to the lessons the puppet and stuffed animal were replaced with primarily human interaction as to relate to real life experiences.

The first lesson was how to greet a friend. A small group of three to five children gathered with me around a work rug on the floor. First, I demonstrated how to greet a friend by using the stuffed bunny. I made eye contact with the bunny, shook hands with the bunny, and said ‘good morning.’ Then I offered each child the opportunity to make eye contact and shake

hands with the bunny while saying “good morning.” Next I gave the opportunity to greet me by extending my right hand and saying, “good morning” to each child. Finally, I invited each child to greet the child next to them.

The second lesson was how to ask for a turn. With children gathered around a work rug on the floor with me, I gave one child a bunny and then asked, “May I have a turn to hold the bunny?” If the child gave me the bunny I said, “Thank you.” If the child did not want to let me have a turn I said, “I would like a turn next.” I told the children they could ask to hold a bunny. The children asked one another to hold a bunny. When I saw a child reaching for a bunny, I encouraged them to ask for a turn and I modeled respecting the child who wanted to say no.

The third lesson was how to express affection. For the first two lessons described above, the initial lesson included modeling with the stuffed animal as well as interactions between the children. For this lesson, however, the first two weeks of the intervention consisted of children asking to hug or pet only a stuffed bunny or puppet. I modeled asking to hug the bunny when a child was holding it. I respected the answer of the child. I asked each child if they would like to hug the bunny and if so, that they could ask the bunny for permission. For the final three weeks of the intervention we added asking to give a hug to each other, honoring the response given. I modelled how to ask a child if I could give them a hug, respecting their response. The children and I never asked to receive a hug; it was only asked if we could give a hug.

This action research study consisted of quantitative and qualitative observation, field notes, and self-reflection (Appendices A-F). One week of baseline data was collected followed by five weeks of interventions and data collection (Appendices B-E). During the weeks of intervention, I logged the lessons offered (Appendix D) and observed the children’s response to the lessons (Appendix C)

Using the External Factors log, daily I recorded the number of students and staff present, as well as external factors such as weather, schedule changes, loss of outdoor time due to weather, and others noted in data (Appendix E). I completed a self-reflection log daily that included qualitative data to assess my self-efficacy, to measure how the study affected me as the researcher, and how my role impacted the study (Appendix F).

For all six weeks I observed for ten minutes at the beginning of each morning tallying unwelcome physical behavior (Appendix A) and grace and courtesy behavior, defined as using language to communicate needs and wants (Appendix B).

During weeks two through six, I used the Grace and Courtesy Lessons Given Log (Appendix C) to collect data on which interventions were presented on each date and which students participated in the interventions. Three related grace and courtesy lessons were used as the interventions. While participation was optional, all students were invited to join in small groups over the course of 6 weeks. My goal had been for each child to receive each intervention three times.

After each intervention session I observed the class again for ten minutes and observed behavior of the students using Post Lesson Daily Field Notes (Appendix C).

To collect data, I printed out copies of the data collections forms (Appendix A-F) and manually recorded data throughout the day. Data was then entered into spreadsheets. Quantitative data was coded for data interpretation.

### **Data Analysis**

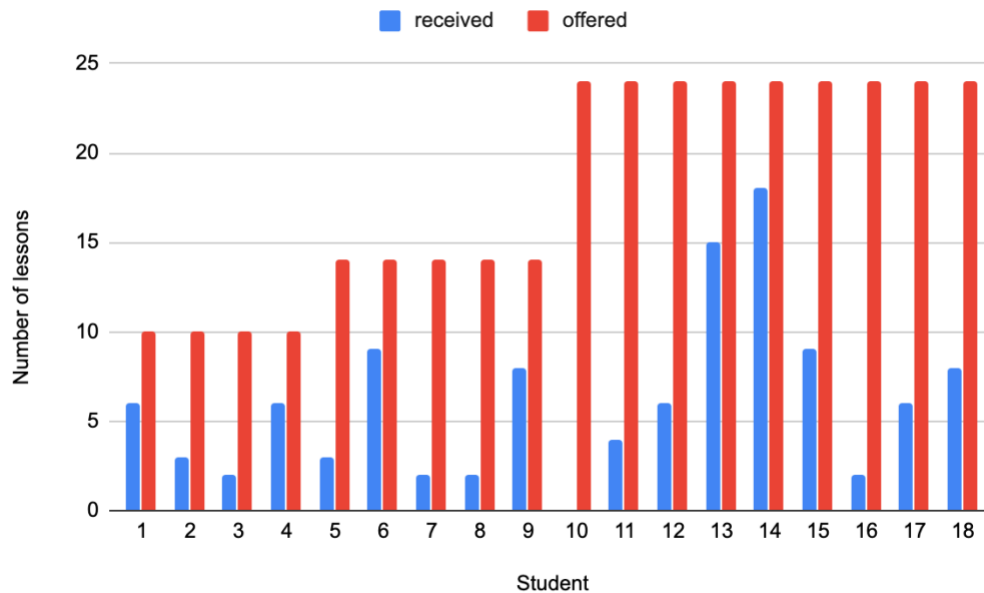
The purpose of this action research study was to assess the impact of grace and courtesy lessons on the incidences of unwelcome physicality in a Montessori toddler classroom. The research design was observation and included quantitative and qualitative data. The intervention

was grace and courtesy lessons that aimed to teach how to greet a friend, ask for a turn, and express affection. I offered the lessons in a small group setting at varying times each morning. This data comes from 29 days of observing toddlers in a Montessori classroom, between January 13 and February 28, 2020. The first five days baseline data was collected, on the sixth day the intervention began.

Each day I spent ten minutes observing the class and recording unwelcome behavior (Appendix A) and grace and courtesy behavior (Appendix B). During the intervention period, after each grace and courtesy lesson, I spent another ten minutes observing and taking field notes (Appendix C).

The research was conducted at a private Montessori preschool that allowed for five, three, and two-day weekly attendance for toddlers. A total of 18 students, ranging in age from 27 to 37 months old, participated in the study. Monday through Wednesday there were 14 enrolled students and Thursday and Friday there were 13 enrolled students. Nine students attended daily, five students attended Monday, Tuesday and Wednesday only, and four students attended Thursday and Friday only. While all students were invited to participate in the grace and courtesy lessons, only one child did not participate in a single lesson (Appendix D). Due to illness, school-cancelling weather, and National Holidays, school was not in session every day during the six weeks. These external factors in addition to school attendance impacted the number of times students could potentially participate in the grace and courtesy lessons (Appendix E). Students who attended five days a week were offered 24 lessons over the six-week period. Students who attend Monday, Tuesday and Wednesday only, were offered 14 lessons. Students in attendance Thursday and Friday only were offered 10 lessons. The data presented in Figure 1 details all the lessons offered and accepted by each student over the course

of the intervention. The average number of lessons one child received was 6.05. On average children accepted 36% of the invitations to participate in the lessons. Only two students participated in more than ten lessons and eight students participated in more than five lessons. One student chose not to participate.



*Figure 1.* The number of lessons offered to each student over the course of the study compared to the actual number of lessons accepted. Students 1-4 attended Thursday and Friday only. Students 5-9 attend Monday, Tuesday and Wednesday only. Students ten-eighteen attended school five days a week.

The behaviors I tracked during the study were unwelcome behavior and grace and courtesy behavior. Unwelcome behavior was broken into three subcategories: a) taking work, b) disrupting the environment (throwing work), and c) physical behavior, such as hitting, biting, pushing, or hair pulling. Grace and courtesy behavior included language and self-restraint. Language children used related to the intervention such as, “I want a turn next,” was tracked in Daily Display of Grace and Courtesy and Post Lesson Daily Field Notes (Appendices B & C). Self-restraint was assessed as a child quietly waiting. During the baseline week, the highest daily rate of unwelcome behavior was three, with a daily average for the week of 1.6 incidences.



During the baseline week the highest daily incidences of grace and courtesy behavior was three. The average baseline incidence of grace and courtesy was 1.4 per day.

### Unwelcome Behavior

Figure 2 illustrates the daily incidence of unwelcome behavior broken down into types of unwelcome behavior over the course of the study. As seen in Figure 2, there were two days with noticeably higher instances of unwelcome behavior. From my data collected on external factors log (Appendix E), January 21 was a Tuesday after a three-day weekend where there was no school on Monday, often this change in routine is unsettling for young students. Pertaining to the high incidence of unwelcome behavior on February 7, data from the external factors log indicate that there had been freezing rain that morning which changes morning routines for families.

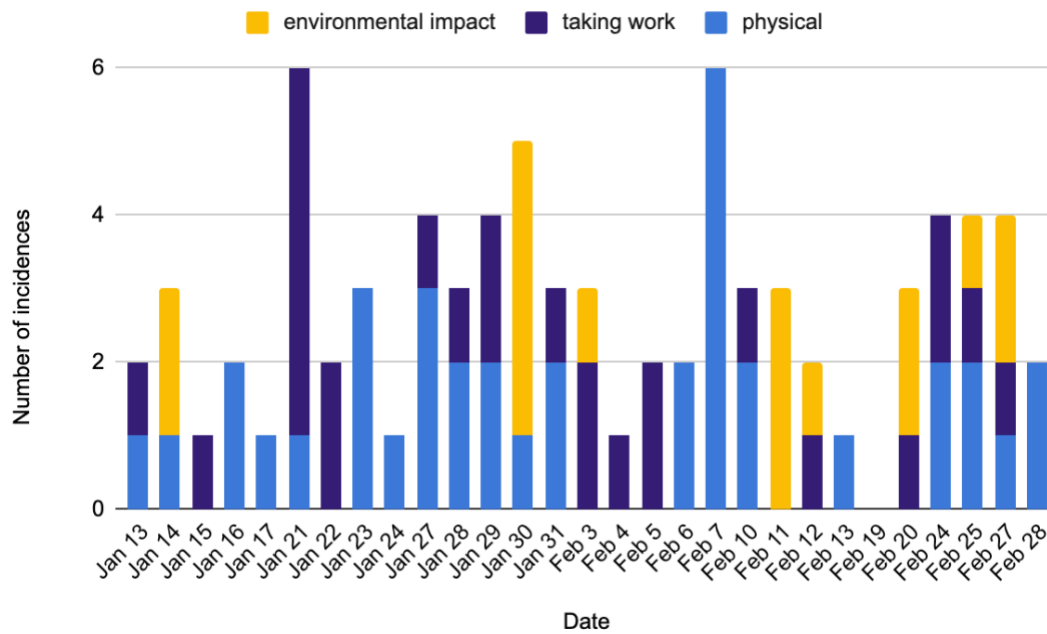


Figure 2. Daily Unwelcome Behavior. Data gathered from daily ten-minute observation of unwelcome behavior. This includes the first week of baseline data.

One could expect variation in behaviors day to day, so I decided to look at the average weekly incidence of unwelcome behavior (Figure 3). Once again, there was no consistent decline

in unwelcome behaviors week to week. Behaviors increased from the baseline through week 2. The average weekly incidence of unwelcome behavior (Figure 3) declined between weeks two and five and then rose again in week 6.

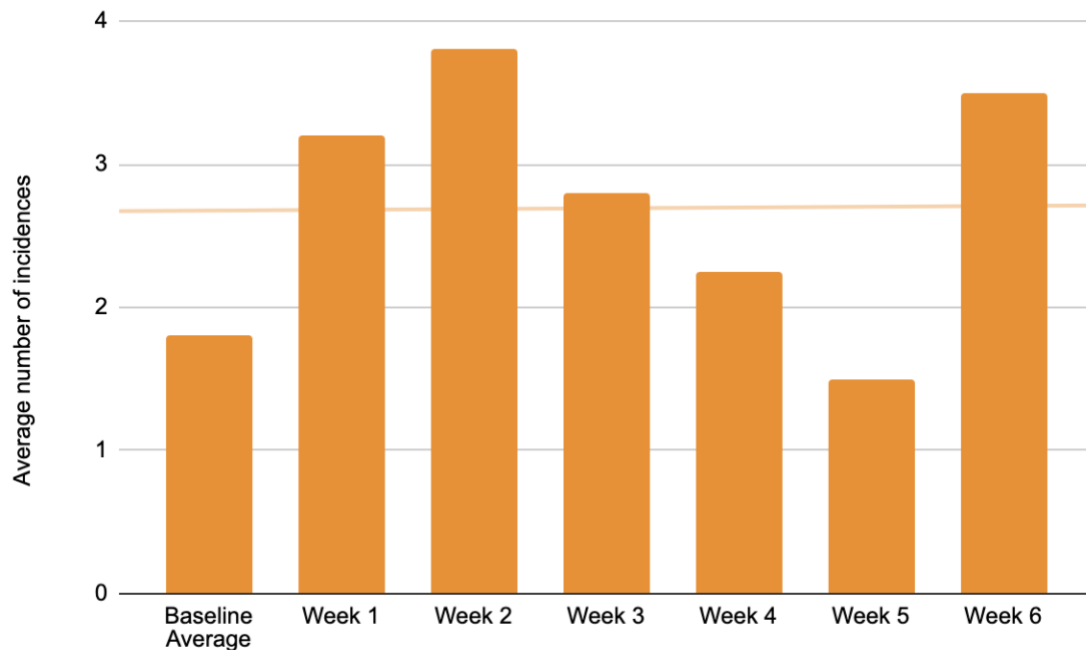


Figure 3. Weekly average of unwelcome behavior with trendline. It is important to note that during week five there were only two days of data collection.

The impetus of this study was the unwelcome *physical* behavior. The data shows a decrease in unwelcome behavior between weeks 2 and 5 (Figure 3). In Figure 4, unwelcome behavior is charted by categories physical, environmental, and taking work. The data indicated an overall trend towards an increase in environmental unwelcome behavior, such as messing up another child's work. Over the course of the research, the data showed a trend towards a decrease in incidences of student's taking each other's work. The average incidence of unwelcome physical behavior remained unchanged during the action research project.

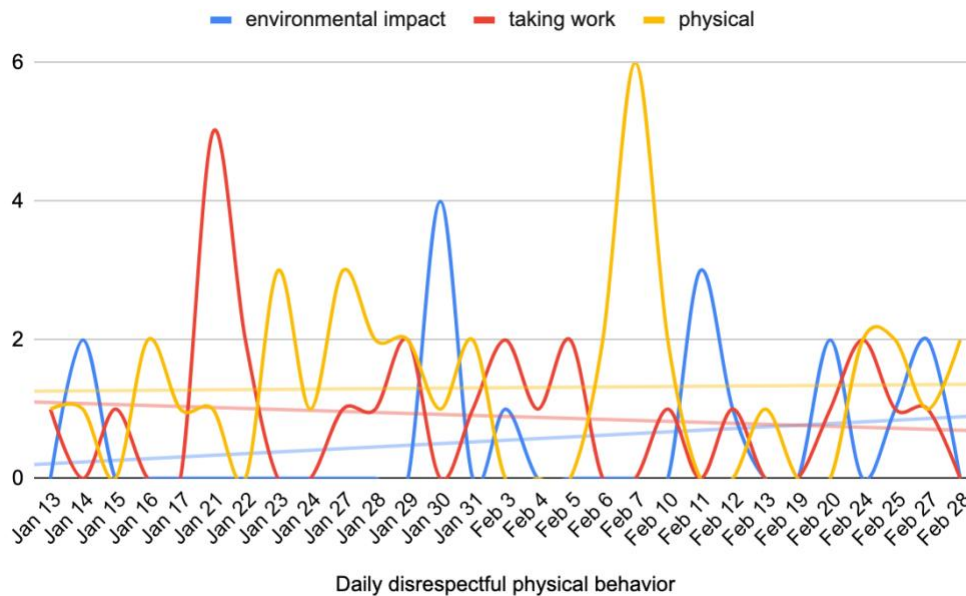
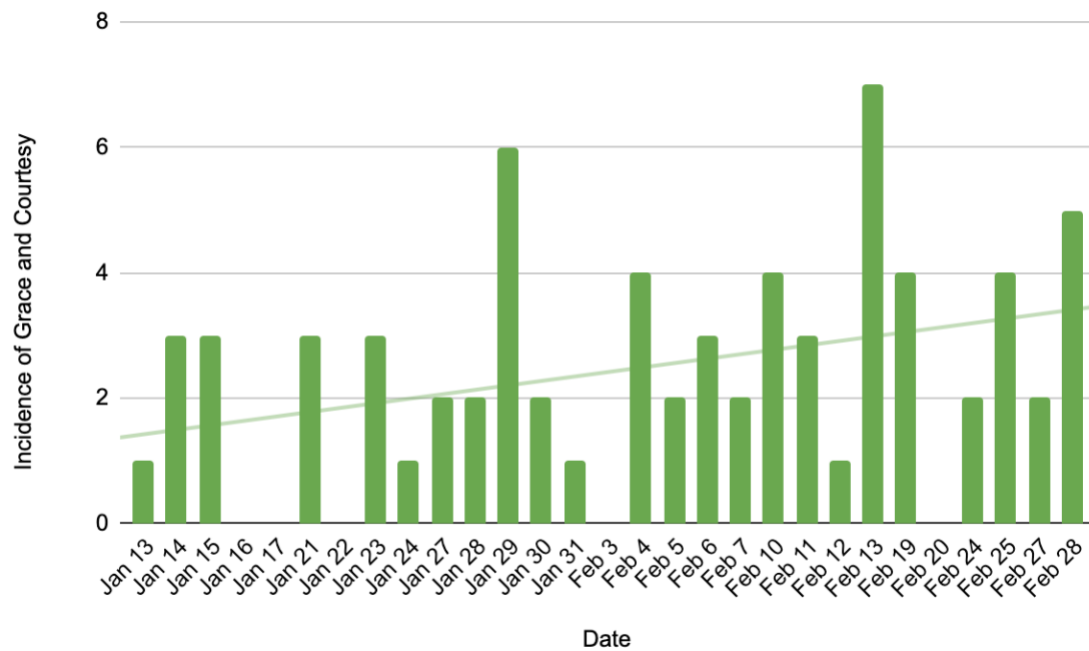


Figure 4. Types of unwelcome behavior with trendline.

### Grace and Courtesy Behavior

In the baseline data week as well as all six weeks of the intervention I collected data on the incidence of grace and courtesy. Figure 5 tracks the daily occurrence of grace and courtesy observed in the Grace and Courtesy Daily Log (Appendix B). The average daily incidence of grace and courtesy increased over the course of the study by 1.5 occurrences.

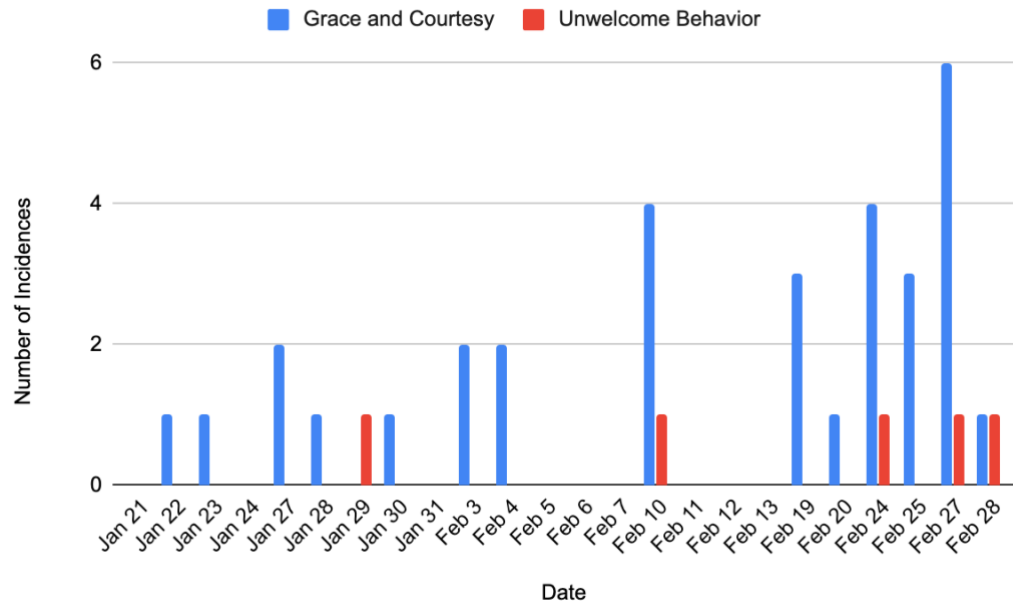
There were five days during the study where there was no record of grace and courtesy behavior in the classroom before the lessons were given. Using the External Data Daily Log (Appendix E) it is noted that on February 7 one child was upset off and on during the morning and February 20 there was a change in the routine as we began the morning with a school wide family gathering. Other than those two dates there was nothing in the field notes to indicate possible reasons for the lack of grace and courtesy behavior on January 16, 17 and 22.



*Figure 5.* Pre-lesson Incidence of Grace and Courtesy from Grace and Courtesy Log (Appendix B) throughout the study with a trendline.

### **Post lesson field notes**

After each session of grace and courtesy lessons I took time to observe and record the behavior in the classroom (Appendix C). During analysis, the observational notes were grouped into either observations of grace and courtesy or unwelcome behavior. Grace and courtesy included using language to express feelings and desires. Unwelcome behavior was defined by hitting, pushing, taking work, biting and other harmful behavior. Of the 24 research intervention days there were only five days where unwelcome behavior occurred in the ten-minute period after the lessons were given (Figure 6). The data indicated that incidence of grace and courtesy during this same period increased over the course of the intervention.



*Figure 6.* Post-lesson Incidence of Grace and Courtesy and Unwelcome Behavior observed in the 10 minutes after giving the intervention grace and courtesy lessons. The days with no data indicates neither behavior was observed.

When comparing pre and post lesson unwelcome behavior there was a noticeable difference (Figure 7). The observation periods both pre and post lesson were ten minutes long. While 23 of the 24 days of intervention showed incidences of unwelcome behavior during the morning observation, only 5 of the 24 days showed unwelcome behavior after the intervention.

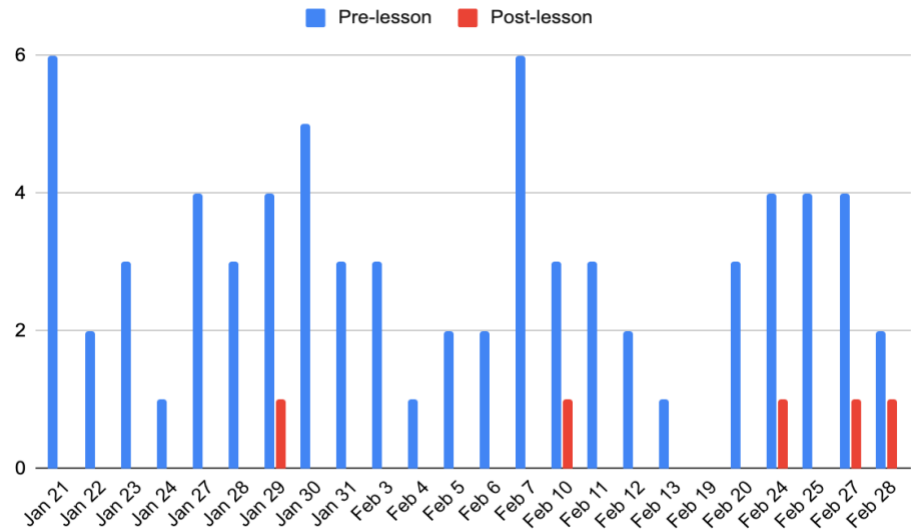


Figure 7. Unwelcome behavior occurrences before and after the grace and courtesy lessons.

Figure 8 compares the pre and post lesson incidences of Grace and Courtesy. While the data fluctuated greatly, the spikes and valleys in the graph coincide on many days. This led me to question if there is another influencing factor in grace and courtesy or unwelcome behavior, in particular attendance.

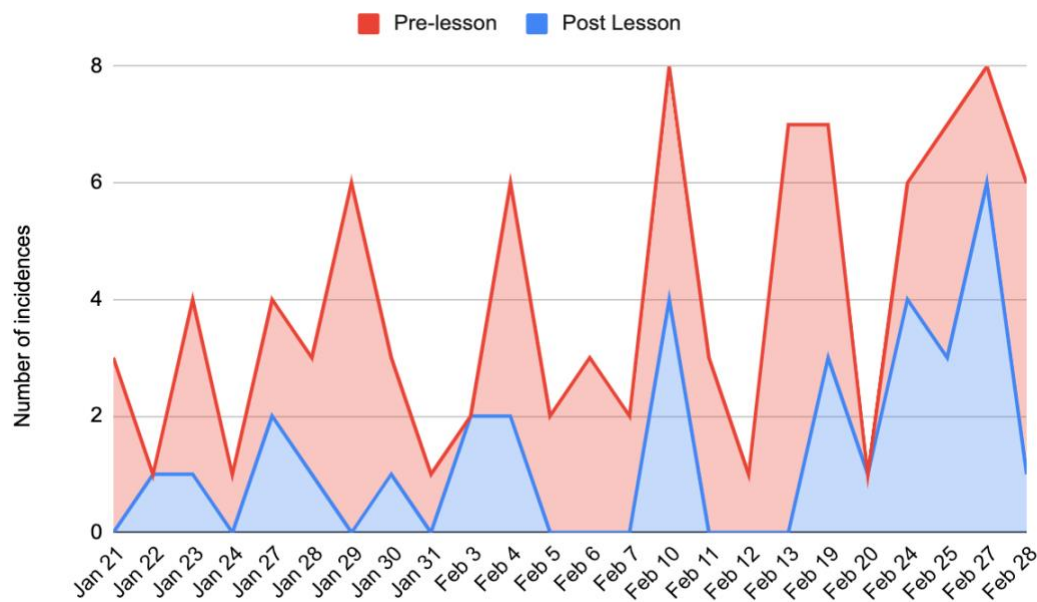


Figure 8. Daily comparison of Grace and Courtesy incidence before and after the lessons.

### The effect of attendance

While comparing the data for the interventions effect on behavior in the classroom, attendance appeared to be a factor (Figure 9). I first looked at the effect of how many days a week each student attended class. Total student enrollment was 14 students Monday, Tuesday and Wednesday and 13 students on Thursday and Friday. Nine students attended five days a week, five students were enrolled only Monday, Tuesday and Wednesday and four students were enrolled only on Thursday and Friday. Unwelcome behaviors occurred every day except for Wednesday, February 19, 2020, a day of low student attendance as indicated in the External Factors Log (Appendix E).

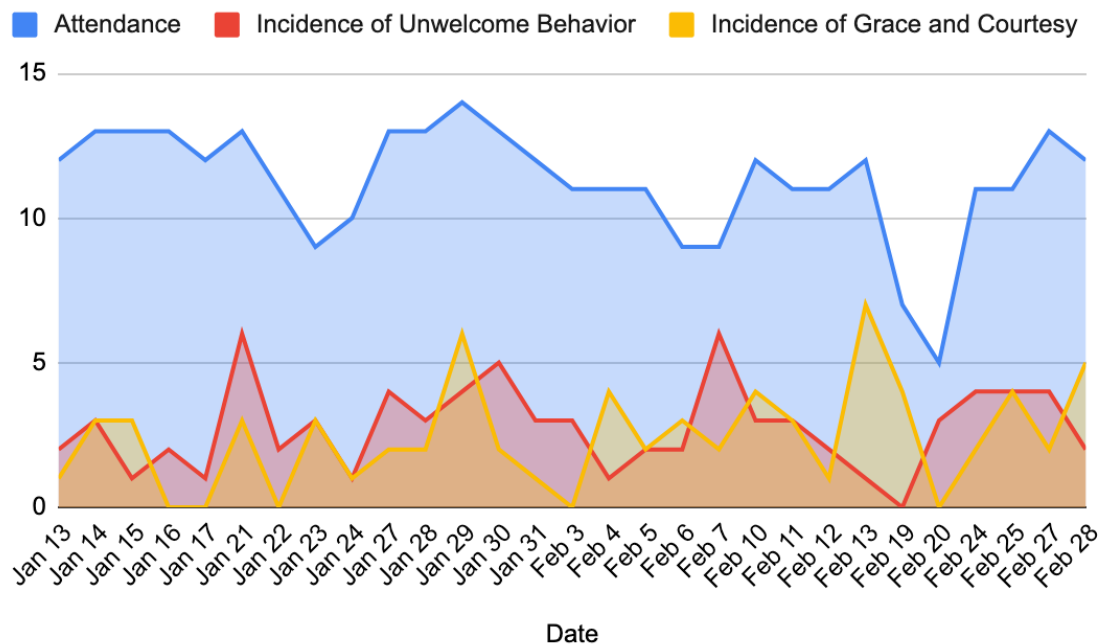
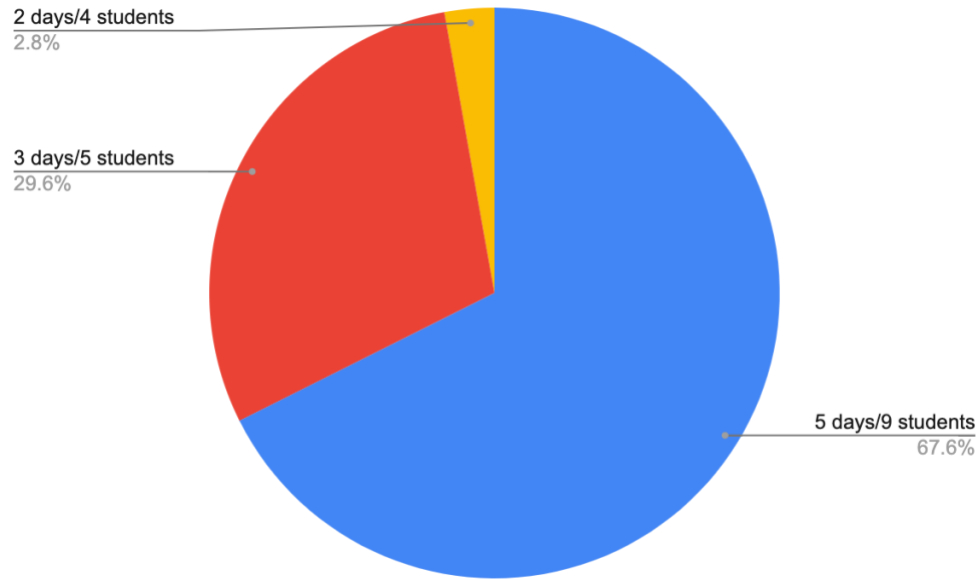


Figure 9. Daily comparison of attendance with incidence of unwelcome behavior and grace and courtesy.

Figure 10 shows the percentages of unwelcome behavior occurrence by the amount of time children spend at school. There were a total of 71 unwelcome behavior incidences during the intervention. Only two incidences of unwelcome behavior came from the four students who

attend two days a week. For the five students who attended three days a week there were 22 incidences of unwelcome behavior.



*Figure 10.* Incidence of unwelcome behavior by number of days students attend. For example, in blue, the 9 students who attend school for 5 days account for 67.6% of the unwelcome behavior.

When the daily incidences of behavior are averaged by actual number of days a child was in attendance the data indicates that there was more unwelcome behavior from students who attended three days a week (Table 1). According to this data, the number of days per week that a child attends does not seem to impact incidences of unwelcome behavior.

Table 1

*Average Occurrence of Unwelcome Behavior Based on Days Enrolled*

Incidence	Day Attended during research	Number of Children	Average incidence per child per day
54	29	9	.21
22	17	5	.25
2	12	4	.04



During this time actual student attendance fluctuated because of student absences. I decided to look at incidences of unwelcome behavior compared to the actual number of children present in the classroom. In order to better compare these two, I scaled the attendance numbers by dividing by five. As seen in Figure 11, the number of students present in class directly influenced the average instances per child of unwelcome behaviors. The more students present in class, the more each child, on average, exhibited unwelcome behavior.

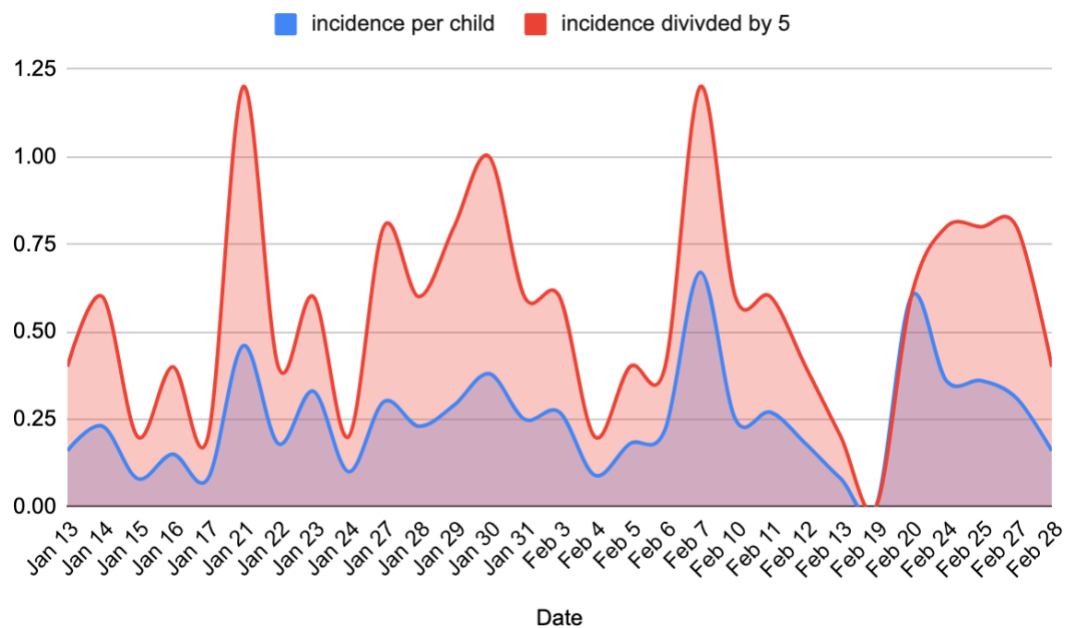


Figure 11. This figure shows the daily average incidence of unwelcome behavior and the incidence divided by 5.

### Self-Reflection

From the daily self-reflection I found that over the course of the study my feelings before school became calmer and my attitude toward the physicality in the classroom became more accepting. Researching toddler physicality highlighted the developmental appropriateness of the behavior which allowed me to shift into problem solving mode versus trying to control children's behavior (Benedict, Horner, & Squires, 2007). On the first day of interventions in response to

“What is your attitude towards the physicality in the classroom today” (Appendix C) I wrote “oddly calm I think because I am trying something new to address it.” Conducting this research empowered me. I felt more confident in my daily before school check-ins. From this qualitative data I noted “I wonder how much of the lesson time together is really just about having connection regardless of the lesson topic.”

### **Conclusion**

The purpose of this action research project was to find the impact of grace and courtesy lessons on unwelcome behavior in a Montessori toddler classroom. The data showed that the average incidence of unwelcome behavior remained unchanged over the course of the study. The data indicated that the grace and courtesy lessons increased the incidence of grace and courtesy behavior over the course of the study. From that data it became evident that attendance affected unwelcome behavior and grace and courtesy behavior.

### **Action plan**

Montessori grace and courtesy lessons are a cornerstone in the Primary classroom to set the stage for all other learning. In general, the lessons teach children how to interact with one another and with the environment around them. The lessons used in this research taught toddlers how to greet one another, ask for a turn, and express affection. The purpose of this research was to see if these lessons decreased the number of unwelcome behavior in the environment.

While the data did not show any trend towards a decrease in unwelcome behavior, I wonder what would have happened if there were an increase in weeks of lessons and more weeks to observe post intervention data. In similar research, Hanusz-Rajkowski (2016) also concluded that this research requires a longer duration.

Post-intervention data shows an increase in grace and courtesy behavior immediately after the interventions. Data also showed an increase of grace and courtesy behavior over the course of the study. Without a control group it is hard to connect the lessons to the increase of grace and courtesy. The increase of grace and courtesy could be a result of natural growth.

Based on the research and my experience, I will continue grace and courtesy lessons in my classroom. During the research I spent more concentrated time than usual observing my classroom. I will continue that practice too and ask my assistant and other teachers in my school to take time as well. Observation allowed me to be an uninvolved witness and during that time I was able to identify needs of the students as well as adjustments that were needed in the environment.

The daily reflection provided me an opportunity to unpack my feelings and thoughts; I could reflect as opposed to ruminate. I believe this is what made me feel empowered and encouraged about my classroom and my students.

I am inspired to continue this research on grace and courtesy in the toddler environment. In replicating this research, I would add data collection tools for tracking who is invited to the lessons to verify that all students are invited. I would have the data collected pre and post lesson be the same format, either field notes for both or tally.

## References

- Aden, H., & Leffler, S. (2001). Promising approaches for the angry child. *Reclaiming Children and Youth*, 10(2), 122-125. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/214195025?accountid=26879>
- Andrews, Megan C.. (2017). Supporting Conflict Resolution in an Early Childhood Montessori Environment. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/206>
- Bagby, J. & Sulak, T. (2018). Montessori and executive function. *Montessori Life*, 30(1), 15.
- Barnett, W. S., Kwanghee, J., Yarosz, D. J., Thomas, J., Hornbecka, A., Stechuk, R., Burns, S. (2008). Educational effects of the Tools of the Mind curriculum: A randomized trial. *Educational Childhood Research Quarterly*, 23, 299-313.
- Benedict, E. A., Horner, R. H., & Squires, J. K. (2007). Assessment and implementation of positive behavior support in preschools. *Topics in Early Childhood Special Education*, 27(3), 174-192. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/233599371?accountid=26879>
- Bettmann, J (2015). Nurturing the respectful community through practical life. *The NAMTA Journal*, 40(1), 63-80.
- Blair, C., & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology*, 20(3), 899–911. doi: 10.1017/s0954579408000436

- Blair, C. & Raver, C. C. (2012) Individual Development and Evolution: Experiential Canalization of Self-Regulation. *Developmental Psychology* 48(3), 647-57.
- Blasco, P. M., Saxton, S., & Gerrie, M. (2013). The little brain that could. *Young Exceptional Children*, 17(3), 3–18. doi: 10.1177/1096250613493296
- Bridgett, D., Burt, N., Edwards, E., & Deater-Deckard, K. (2015). Intergenerational Transmission of Self-Regulation: A Multidisciplinary Review and Integrative Conceptual Framework. *Psychological Bulletin*, 141(3), 602-654.
- Bridgett, D., Oddi, K., Laake, L., Murdock, K., & Bachmann, M. (2013). Integrating and Differentiating Aspects of Self-Regulation: Effortful Control, Executive Functioning, and Links to Negative Affectivity. *Emotion*, 13(1), 47-63.
- Booth, A., Hennessy, E., & Doyle, O. (2018). Self-regulation: Learning across disciplines. *Journal of Child and Family Studies*, 27(12), 3767–3781. doi: 10.1007/s10826-018-1202-5
- Conners-Burrow, N. A., Patrick, T., Kyzer, A., & Mckelvey, L. (2017). A preliminary evaluation of REACH: Training early childhood teachers to support children's social and emotional development. *Early Childhood Education Journal*, 45(2), 187-199.  
doi:<http://dx.doi.org.pearl.stkate.edu/10.1007/s10643-016-0781-2>
- Conway, A. & Stifter, C. (2012). Longitudinal antecedents of executive function in preschoolers. *Child Development* 83(3), 1022-1036.
- Cossentino, J. (2005). Ritualizing expertise: A non-Montessorian view of the Montessori method. *American Journal of Education*, 111(2), 211-244.  
doi:<http://dx.doi.org.pearl.stkate.edu/10/1086/426838>

- Cronklin-Moore, A. (2017). Theory into practice: Advancing normalization for the Child under three. *The NAMTA Journal*, 42(2), 63-96.
- Dettore, E. (2002). Children's emotional growth: Adult's role as emotional archaeologists. *Childhood Education* 78(5), 278–281. doi: 10.1080/00094056.2002.10522741
- Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4 to 12 years old. *Science*, 19(333), 959-964.
- Ervin B., Wash, P. D., & Mecca, M. E. (2010) A 3-Year study of self-regulation in Montessori and non-Montessori classrooms. *Montessori Life*, 22, 22-31.
- Fernando, C. (1997). Integrating Csikszentmihalyi and Montessori. *The NAMTA Journal* 22(2) 117-121.
- Florez, I. R. (2011). Developing young children's self-regulation through everyday experiences. *YC Young Children*, 66(4), 46-51. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/881554434?accountid=26879>
- Gillespie, L. G., & Seibel, N. L. (2006). Self-regulation: A cornerstone of early childhood development. *YC Young Children*, 61(4), 34-39. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/197587906?accountid=26879>
- Gregoire, Katie J. (2017). Grace and Courtesy in Living with Conflict in the Montessori Children's House. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/215>

- Gloeckler, L., & Cassell, J. (2012). Teacher practices with toddlers during social problem-solving opportunities. *Early Childhood Education Journal*, 40, 251-257. doi 10.1007/s10643-011-0495-4.
- Hanusz-Rajkowski, B. A. (2016). Grace in the Face of Conflict: Can Grace and Courtesy and Peace Curriculum Lessons create a Peaceful Classroom?. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/151>
- Heydenberk, W. & Heydenberk, R. (2007). More than manners: Conflict resolution in primary level classrooms. *Early Childhood Education Journal* 35(2).
- Hofmann, W., Schmeichel, B. J., & Baddeley, A. D. (2012). Executive functions and self-regulation. *Trends in Cognitive Sciences*, 16(3), 174–180. doi: 10.1016/j.tics.2012.01.006
- Housman, D. K. (2017). The importance of emotional competence and self-regulation from birth: A case for the evidence-based emotional cognitive social early learning approach. *International Journal of Child Care and Education Policy*, 11(1), 1-19. doi:<http://dx.doi.org.pearl.stkate.edu/10.1186/s40723-017-0038-6>
- Housman, D. K., Denham, S. A., & Cabral, H. (2018). Building young children's emotional competence and self-regulation from birth: The begin to...ECSEL approach. *International Journal of Emotional Education*, 10(2), 5-25. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/2153611015?accountid=26879>
- La Paro, K. M., & Gloeckler, L. (2016). The context of child care for toddlers: The "experience expectable environment". *Early Childhood Education Journal*, 44(2), 147-153. doi:<http://dx.doi.org.pearl.stkate.edu/10.1007/s10643-015-0699-0>

- Leff, S. S., Power, T. J., Manz, P. H., Costigan, T. E., Nabors, L. A. (2001). School-based aggression prevention program for young children: Current status and implications for violence prevention. *School Psychology Review*, 30(3), 344. Retrieved from <https://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/219646772?accountid=26879>
- Leonard, H., & Schecter, B. (2013). *Focused Attention in the Toddler Years: How Focused Attention Is Supported in Montessori and Play-Centered Programs for Children Under Three*: ProQuest Dissertations and Theses.
- Lloyd, K. M. (2008). *An analysis of Maria Montessori's theory of normalization in light of emerging research in self-regulation* (Order No. 3326413). Available from Education Database; ProQuest Dissertations & Theses Global. (304503369). Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/304503369?accountid=26879>
- Logue, M. E. (2006). Teachers observe to learn. *YC Young Children*, 61(3), 70-76. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/197635202?accountid=26879>
- McGrath, B. (2016). Building social/emotional curriculum for Montessori primary classrooms (masters's thesis). St. Mary's College: California.
- Miller, S. E., & Marcovitch, S. (2015). Examining executive function in the second year of life: Coherence, stability, and relations to joint attention and language. *Developmental Psychology*, 51(1), 101-114. doi:<http://dx.doi.org.pearl.stkate.edu/10.1037/a0038359>
- Miller, S. E. & Marcovitch, S. (2011). Toddlers benefit from labeling on an executive function search task. *Journal of Experimental Child Psychology* 108(3), 580-592.



- Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R.J., Harrington, H., Houts, R., Poulton, R., Roberts, B.W., Ross, S., Sear, M. R. Thomson, W. M., Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences*, 108 (7), 2693-2698.  
<https://doi.org/10.1073/pnas.1010076108>.
- Montessori, M. (1995). *The absorbent mind*. New York: Holt Paperbacks.
- Montessori, M. (1966). *The secret of childhood*. South Bend IN:Fides
- Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology*, doi:<http://dx.doi.org.pearl.stkate.edu/10.1037/dev0000159>
- Morasch, K. C., & Bell, M. A. (2011). The role of inhibitory control in behavioral and physiological expressions of toddler executive function. *Journal of Experimental Child Psychology*, 108(3), 593–606. doi: 10.1016/j.jecp.2010.07.003.
- Singer, E., & Hannikainen, M. (2002). The teacher's role in territorial conflicts of 2- to 3-year-old children: JRCE JRCE. *Journal of Research in Childhood Education*, 17(1), 5-18.  
Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/203873668?accountid=26879>
- Soholt, P. (2015). Living Grace and Courtesy in the Primary. *NAMTA Journal*, 40(1), 51–61.  
Retrieved from <https://search-ebshost-com.pearl.stkate.edu/login.aspx?direct=true&db=eric&AN=EJ1077979&site=ehost-live>
- Thompson, K. (2018). How a Montessori prepared environment builds executive function in a primary classroom (master's thesis). University of Wisconsin, River Falls.

- Thompson, R. A. (2001). Development in the first years of life. *The Future of Children*, 11(1), 20-33. Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/220152495?accountid=26879>
- Thompson, R. A. (2009). Doing what doesn't come naturally: The development of self-regulation. *Zero to Three*, 30(2), 33-39
- Van Fleet, Stephanie M.. (2015). Instilling Reverence for Montessori Materials Through Rituals of Grace and Courtesy. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/121>
- Vestal, A. & Jones, N.A. (2004). Peace building and conflict resolution in preschool children. *Journal of Research in Childhood Education* 19(2), 131-142. Retrieved from <https://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/203879797?accountid=26879>
- Walton, M. (2016). *Mindfulness in the early childhood classroom: A curriculum to develop self-regulation* (Master's thesis). St. Mary's College, California.
- Willis, E. (2016). An empathetic beginning in education: Exploring the prospects of self-regulation skills on pro-social behaviour in the early childhood environment. *Early Child Development and Care*, 186:4, 662-670, DOI: 10.1080/03004430.2015.1045422.
- Willis, E., & Dinehart, L. (2014). "Contemplative practices in early childhood: Implications for self-regulation skills and school readiness." *Early Child Development and Care*. 184(4), 487-499.
- Worley, L. E., & Goble, C. B. (2016). Enhancing the quality of toddler care: Supporting curiosity, persistence, and learning in the classroom. *YC Young Children*, 71(4), 32-37.

Retrieved from <http://pearl.stkate.edu/login?url=https://search-proquest-com.pearl.stkate.edu/docview/1819682060?accountid=26879>

- Wyman, P., Cross, A., Hendricks Brown, W., Yu, C., Tu, Q., & Eberly, X. (2010). Intervention to Strengthen Emotional Self-Regulation in Children with Emerging Mental Health Problems: Proximal Impact on School Behavior. *Journal of Abnormal Child Psychology*, 38(5), 707-720.
- Zhang, M. (2019). Modeling Grace and Courtesy in a Montessori Classroom and its Influence on Children's Social Behavior. Retrieved from Sophia, the St. Catherine University repository website: <https://sophia.stkate.edu/maed/333>

## Appendix A

Data Tool # 1 Unwelcome behavior daily log

#	TIME	*INT.	BEHAVIOR (Hitting, Pushing, Biting, Kicking, Hair-Pulling)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

\*Child's initials

## Appendix B

Data Tool # 2 Grace and courtesy behavior daily log

#	TIME	*INT.	BEHAVIOR (Language, Self-restraint)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

\*Child's initials

## Appendix C





Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

## Appendix F

Self-reflection daily log



Date:	Day:	# of children	Weather
-------	------	---------------	---------

External Factors:
-------------------

How did you feel before school started today? Your energy level? Your stress level?
---

How do you feel now, after school is over?
--

How would you describe the physicality in the classroom today?
--

What is your attitude towards the physicality in the classroom today?
---

What other thoughts, ideas or inquiries do you have about the classroom today?
--

